

Proposed Recommendation for: Hierarchical Addressing Protocol

Authors: Dave Wolf, W05H
 Greg Jones, WD5IVD
 Roy Engehausen, AA4RE
 Hank Oredson, WORLI

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Send Comments and Supplemental Table Input to:
Dave Wolf, W05H, TAPR BBS SIG Chair
Packet: wo5h@wo5h.#dfw.tx.usa.noam
Internet: dwolf@tcet.unt.edu
Fax: (8 17) 295-6232

Introduction

The TAPR BBS Special Interest Group recommends the adoption of the x.3.4 hierarchical address protocol.

After discussion of previous articles on hierarchical addressing standards (1,2) and taking into account international issues of regional/state name sizes, the TAPR BBS Special Interest Group recommends the adoption of the x.3.4 standard on an international basis. x is defined as 2, 3, or 4 letter region names as defined by the country

Examples of x.3.4:

@WA6GVD.CA.USA.NOAM
@EA2CMO.EAZ.ESP.EURO
aF5JGK.FAQI.FRA.EURO

Regional identifiers may be duplicated in different countries (i.e. AK, Alaska, USA, could be used in another country as a regional identifier); however, Country and Continental identifiers SHOULD NOT be used as regional names.

It is important to note that there is a distinct and significant difference between HIERARCHICAL ADDRESSES and FLOOD DESIGNATORS. Hierarchical address elements are common to all messages (bulletins, P and T types) and are the foundation of the digital forwarding system. Flood designators are used for routing and filtering bulletins. Geographical flood designators are likely based upon hierarchical address elements. It is therefore important that any attempt to establish standards concentrate first on hierarchical address elements. Standards for flood designators can follow.

It is the purpose of this document to establish a basic framework upon which to base a logical hierarchical addressing structure. Attached Supplemental Tables will be changed as necessary to reflect current configurations within the international BBS network.

Hierarchical Routing Syntax Summary

This summary uses a modified Backus-Naur form to summarize the syntax for hierarchical addressing.

[] = optional

ahierarchial address

bbs. [#octothorpe.][region.]country.continent

bbs

valid callsign as defined by local communications authority

#octothorpe.

#area. [#octothorpe.]

#area

local area identifier as defined by the sysops of the local region

See Supplemental Table 4 for list of current area identifiers

region

2,3, or 4 character region identifier (for state, province, department, prefecture, etc.) as defined by sysops within each country.

See Supplemental Table 3 for list of region identifiers

country

3 character country identifier as defined by ANSI X. 12 and EDIFACT.
Published in ISO 3 166-198 1 (E/F).

See Table 2 for country identifiers

continent

4 character continental identifier.

See Table 1 for continental identifiers.

Examples:

F6CNBMETX.TX.USA.NOAM

KE!7WE.#WWA.WA.USA.NOAM
OHGRBV.#VAA.FIN.EURO
SK2AT.AC.SWE.EURO
OH6RBG.FIN.EURO
KE7KD.#NONEV.NV.USA.NOAM
WX3K.#NOCAL.CA.USA.NOAM

References:

1. Jenkins, Lew (N6VV), Dave Toth (VE3GYQ), and Hank Oredson (WORLI). International Routing Designators. Proceedings of the ARRL 7th Computer Networking Conference. Columbia Maryland. October 1, 1988. pp. 91-93.
2. Clark, Tom (W3IWI). Some comments on the 'Hierarchical Continent Address Designator. Proceedings of the ARRL 9th Computer Networking Conference. London, Ontario Canada. September 22, 1990. pp. 278-279.

TABLE 1: Continent Identifiers

EURO -- Europe
MEDR -- Mediterranean
INDI -- Indian Ocean including the Indian subcontinent
MDLE -- Middle East
SEAS -- South-East Asia
ASIA -- The Orient

NOAM -- North America (Canada, USA, Mexico)
CEAM -- Central America
CARB -- Caribbean
SOAM -- South America

AUNZ -- Australia/New ZeAC -- Eastern Pacific
NPAC -- Northern Pacific
SPAC -- Southern Pacific
WPAC -- Western Pacific

NAFR -- Northern Africa
CAFR -- Central Africa
SAFR -- Southern Africa

ANTR -- Antarctica

TABLE 2: Country Identifiers

ARG -- Argentina	ISR -- Israel	URY -- Uruguay
AUS -- Australia	ITA -- Italy	SUN -- USSR ??? (Document needs latest definitions)
AUT -- Austria	JPN -- Japan	VEN -- Venezuela
BEL -- Belgium	PRK -- Korea, North	YUG -- Yugoslavia
BMU -- Bermuda	KOR -- Korea, South	
BOL -- Bolivia	LBN -- Lebanon	
BRA -- Brazil	LIE -- Liechtenstein	END of formal document.
BRN -- Brunei	LUX -- Luxembourg	
BGR -- Bulgaria	MYS -- Malaysia	
CAN -- Canada	MEX -- Mexico	
CHL -- Chile	MC0 -- Monaco	
CHN -- China	MAR -- Morocco	
COL -- Colombia	NLD -- Netherlands	
CRI -- Costa Rica	NZL -- New Zealand	
CUB -- Cuba	NIC -- Nicaragua	
DNK -- Denmark	NOR -- Norway	
DOM -- Dominican Republic	PAK -- Pakistan	
ECU -- Ecuador	PAN -- Panama	
EGY -- Egypt	PRY -- Paraguay	
SLV -- El Salvador	PER -- Peru	
FIN -- Finland	PHL -- Phillipines	
FRA -- France	POL -- Poland	
PYF -- French Polynesia	PRT -- Portugal	
DEU -- Germany	ROM -- Romania	
GRC -- Greece	SAU -- Saudi Arabia	
GRL -- Greenland	SGP -- Singapore	
GTM -- Guatemala	ZAF -- South Africa	
HTI -- Haiti	ESP -- Spain	
HND -- Honduras	SWE -- Sweden	
HKG -- Hong Kong	CHE -- Switzerland	
HUN -- Hungary	SYR -- Syria	
ISL -- Iceland	TWN -- Taiwan	
IND -- India	THA -- Thailand	
IDN -- Indonesia	TUR -- Turkey	
IRL -- Ireland	GBR -- United Kingdom	
	USA -- United States	

SUPPLEMENTAL TABLES follow, which may be modified on a continuing basis to reflect the changing nature of the amateur digital communications network. It is the express desire of the authors that these tables be 'fleshed out' in time as acceptance of the standard proposed in this document grows. The supplemental tables may be maintained by TAPR and disseminated, as necessary.

Supplemental Tables for Hierarchical Addressing Protocol Document e These tables are to be maintained by TAPR, Tucson Amateur Packet Radio Corporation, based on continuing input from the amateur community.

TABLE 3 (SUPPLEMENTAL): Region Identifiers organized by Country Codes.

ARG -- Argentina	CHN -- China	HND -- Honduras
BA 111 77	??	??
CF 17	COL -- Colombia	I-KG -- Hong Kong
AUS -- Australia	??	??
3 7	CRI -- Costa Rica	HUN -- Hungary
ACT -- Austria	??	??
77	CUB -- Cuba	ISL -- Iceland
BEL -- Belgium	??	??
HT II ??	DNK -- Denmark	IND -- India
LG ??	??	??
(0)<--: +?	DOM -- Dominican	IDN -- Indonesia
WVL -- ??	Republic	??
BMU -- Bermuda	??	IRL -- Ireland
77	ECU -- Ecuador	??
B&L -- Bolivia	??	ISR -- Israel
77	EGY -- Egypt	??
BRA -- Brazil	??	ITA -- Italy
RS -0 ??	SLV -- El Salvador	IEMR -- ??
SP i i	??	IFVG -- ??
BRN 1: Brunei	FIN -- Finland	ILOM -- ??
77	??	IPIE -- ??
BGR -- Bulgaria	FRA -- France	IPUG -- i?
??	FCEN -- ??	ISAR -- ??
CAN -- Canada	FRPA -- ?i	ISIC -- ??
Al3 -- Alberta	FCAL -- ??	ITAA -- ??
BC -- British Columbia	FPDL -- ??	IVEN -- ?i
LB -- Labrador	FMLR -- ??	MO -- ??
MB -- Manitoba	FNOR -- ??	JPN -- Japan
NB -- New Brunswick	FCOR -- ??	??
NF -- Newfoundland	FPOC -- ??	PRK -- Korea, North
NS -- Nova Scotia	FAQI -- ??	77
NT -- Northwest	PYF -- French Polynesia	K6R -- Korea, South
Territories	??	77
ON -- Ontario	DEU -- Germany	LBN -- Lebanon
PE -- Prince Edward	BY ??	??
Island	GRC :-Greece	LIE -- Liechtenstein
PQ -- Quebec	??	??
SK -- Saskatchewan	GR!L -- Greenland	LUX -- Luxembourg
UT -- Yukon Territory	??	??
CHL -- Chile	GTM -- Guatemala	MYS -- Malaysia
??	none	??
	HTI -- Haiti	MEX -- Mexico
	??	??

MC0 -- Monaco	EAC -- La Coruna	EAVA -- Valladolid
77	EACA -- Cadiz	EAVI -- Alava
MAR -- Morocco	EACC -- Caceres	EAZA -- Zamora
77	EACE -- Ceuta	
NLD -- Netherlands	EACO -- Cordoba	
77	EAH -- Huesca	SWE -- Sweden
NZL -- New Zealand	EASE -- Sevilla	AC -0 ?7
77	EAHU -- Heulva	CH; -- Switzerland
NIC -- Nicaragua	EAZ -- Zaragoza	77
77	EACR -- Ciudad Real	SYR W ₀ - Syria
NOR -- Norway	EACS -- Castelion	77
77	EACU -- Cuenca	TWN -- Taiwan
PAK -- Pakistan	EAGC -- Gran Canaria	37
77	EAGI -- Girona	THA -- Thailand
PAN -- Panama	EAGR -- Granada	73
77	EAGU -- Guadalajara	TUR -- Turkey
PRY -- Paraguay	EAHU -- Huelva	77
77	EAJ -- Jaen	GHR ---- United Kingdom
PER -- Peru	EAL -- Lleida	(need a list of routing
77	EALE -- Leon	numbers, by county)
PHL -- Phillipines	EAU -- La Rioja	#1 -- -73
77	EALU -- Lugo	#2 -0 37
POL -- Poland	EAM -- Madrid	# ... -80 n ^o
77	EAMA -- Malaga	USA -- United States
PRT -- Portugal	EAML -- Melilla	AK -- Alaska
CTPT -- ?7	EAMU -- Murcia	AL -- Alabama
ROM -- Romania	EANA -- Navarra	AR -- Arkansas
77	(Pamplona)	AZ -- Arizona
SAU -- Saudi Arabia	EAO -- Oviedo	CA -- California
77	EAOR -- Orense	CO -- Colorado
SGP -- Singapore	EAP -- Palencia	CT -- Connecticut
77	EAPM -- Baleares	DE -- Delaware
ZAF -- South Africa	(Palma de Mallorca j	FL -- Florida
77	EAPO -- Pontevedra	GA -- Georgia
ESP -- Spain	EAS -- Cantabria	HI -- Hawaii
	EASA -- Salamanca	IA -- Iowa
EAA -- Alicante	EASG -- Segovia	ID -- Idaho
Eaab -- Albacete	EASO -- Soria	IL -0 Illinois
EAAL -- Almeria	EASS -- Guipuzcoa	IN -- Indiana
EAAV -- Avila	EAT -- Tarragona	KS -- Kansas
EAO -- Asturias	EATE -- Turuel	KY -- Kentucky
EABI -- Vizcaya	EAT0 -- Toledo	LA -- Louisiana
EAB -- Barcelona	EATF -- Santa Cruz de	1MA -- Massachusetts
EABA -- Badajoz	Tenerife	MD -- Maryland
EABU -- Burgos	EAV -- Valencia	ME -- Maine

MI -- Michigan	PA -- Pennsylvania	URY -- Uruguay
MI -- Mississippi	RI -- Rhode Island	MVD -- ??
MN -- Minnesota	SC -- South Carolina	SUN -- USSR ???
MO -- Missouri	SD -- South Dakota	(Document needs latest
MT -- Montana	TN -- Tennessee	defmitions)
NC -- North Carolina	TX -- Texas	??
ND -- North Dakota	UT -- Utah	VEN -- Venezuela
NE -- Nebraska	VA -- Virginia	
NH -- New Hampshire	VT -- Vermont	YUG -- Yugoslavia
NJ -- New Jersey	WA -- Washington	SRI3 -- ??
NM -- New Mexico	WI -- Wisconsin	
NV -- Nevada	WV -- West Virginia	
NY -- New York	WY -- Wyoming	
OH -- Ohio	DC -- District of	
OK -- Oklahoma	Columbia	
OR -- Oregon	PR -- Puerto Rico	

Table 4: (Local) Area Definitions

All readers are suggested to submit their local area definitions for inclusion in the table. Be sure to include the region and country.

Example: #DFW.TX.USA
-- Dallas/Ft Worth Texas
Area would be an entry in this table.

USA -- United States

AK -- Alaska
#ADAK#AK
#SAK#AK

AL -- Alabama
#BHM#AL
#CENAL#AL
#FHI?#AL
#HSV#AL
#MOBAL#AL
#BHM#AL
#CENAL#AL

#FHP#AL
#HSV#AL
#MOBAL#AL

AZ -- Arizona

*AZ
We do not implement .#
do to our network system
allowing live connects from
one end of the state to
another. We agreed this year
to not to make any changes
because things are still
working so well.

FL -- Florida
#MOB#FL
#MLBFL#FL
#NEFL#FL
#NFL#FL - North
Florida Section
#OCFFL#FL

#OKLAN#FL -
Okaloosa County LAN
#ORLFL#FL - Orlando,
FL
#PASFL#FL
#PFNFL#FL
#PMPFL#FL
#PNSFL#FL -
Pensacola, FL
#PSJ#FL
#RCCFL#FL
#SRQ#FL
#SRQFL#FL
#STC#FL
#STU#FL
#SUNFL#FL
#SWFL#FL
#TAV#FL
#TLH#FL - Tallahassee,
FL
#TPA#FL - Tampa, FL
#VENFL#FL
#VRBFL#FL - Vero
Beach, FL

#WPBFL#FL - West Palm Beach, FL	#WCIL.IS.USA WESTCENTRAL IL	#AVL#NC #BUY#NC #CLT 1 #NC #DUR#NC #EASTNC#NC
GA -- Georgia	IN -- Indiana	
#CVL#GA #DLT#GA #ETADS#GA #MAR#GA #NGA#GA #NOGA#GA #NTSGA#GA #SAV#GA #SEGA#GA #SSI#GA #STK#GA #SWG#GA #VLD#GA #WAL#GA #WCGL#GA	#CEIN#IN #CrN#rN #NOIN#IN #NCIN#IN #NErN#rN #NrIwIN #NOIN#IN #NwrN#rN #SrN#rN	#GAS#NC #GSO#NC #HKY#NC #&KY 1#NC #ILM#NC #INT#NC #LBT#NC #MEB#NC #RTP#NC #RTP#NC
IA -- Iowa	KS -- Kansas	ND -- North Dakota
#CIA#IA #ECIA#IA #KAOSTB#IA #NWIA#IA #SEIA#IA #SWIA#IA #WCIA#IA	#NWKS.KS.USA -- Northwest Kansas (21 counties) #NCKS.KS.USA -- North Central Kansas (15 counties) #NEKS.KS.USA -- North East Kansas (21 counties) #SEKS.KS.USA -- South East Kansas (15 counties) #SCKS.KS.USA -- South Central Kansas (15 counties) #SWKS.KS.USA -- Southwest Kansas (18 counties)	#DL#ND #GFK#ND #JAM#ND #MOT#ND #PAR#ND #RL#ND #SEND#ND
IL -- Illinois	KY -- Kentucky	NE -- Nebraska
#NEIL.IL.USA NORTHEASTERN IL #NWIL.IL.USA		#ASHBY#NE #ENE#NE #NENE#NE #SCNE#NE #SENE#NE iWNE#NE
NORTHWESTERN IL #NCIL.IL.USA		
NORTHCENTRAL IL #SIL.IL.USA	#MIDKY#KY #NCKY#KY	NH -- New Hampshire
SOUTHEXN IL #CIL.IL.USA	#NEKY#KY #NWKY#KT	#NNH#NH #SCNH#NH
CENTRAL IL #ECIL.IL.USA		NJ -- New Jersey
EASTCENTRAL IL	NC -- North Carolina	#NNJ#NJ #SNJ#NJ

NV -- Nevada	#NCOK#OK	#SEA#WA
#NENEV#NV Covers	#NEOK#OK	#SEWA#WA
Elko and Ely Nevada	#OKC#OK	#SPOKN#WA
#NONEV#NV Covers	#SCOK#OK	#VANC#WA
Reno, Carson, Fallon, Lake		#WWA#WA
Tahoe Nevada		
#SONEV#NV Covers	PA -- Pennsylvania	WI -- Wisconsin
Las Vegas BBSs		
NY -- New York	#EPA.PA.USA -- East	
#CNY#NY	PA	#CFL#WI
#ENY#NY	#WPA.PA.USA --	#CWI#WI
#NENY#NY	Western PA	#DUR#WI
#NLI#NY	#cpa	#ECWI#WI
#NNY#NY	#nepa	#JNSVL#WI
#NYC#NY	#sepa	#MKE#wI
#WNY#NY	#ncpa	#NOWI#WI
	#scpa	#NwI#WI
	#nwpa	#SCWI#WI
	#swpa	#SEWI#WI
OH -- Ohio	TX -- Texas	#TMH#WI
#CIN#OH		#WwI#WI
#CMH#OH	#AUS	
#DAY#OH	#CENTX	WV -- West Virginia
#EOH#OH	#DFW	#NEWV#WV
#NCOH#OH	#ETX	#NwV#WV
#NEOH#OH	#NTX	
#NOH#OH	#SAT	WY -- Wyoming
#NWOH#OH	#STX	#NwwY#wY
#SEOH#OH	#SETX	#RAwL#WY
#SWOH#OH	#WTX	#SEWY#WY
#TOL#OH		#SOWY#WY
OK -- Oklahoma	WA -- Washington	
	#SWA#WA	

---- END -----

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